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(54) Filling gaps

(57) In a method of filling a gap between the edges of two members 4, 5, at least one of which is movable, especially in motor vehicles, a sponge-like strip 1 is applied to an edge of one member on one side of the gap in such a way that when the two members are brought together the gap between them is closed by the strip. The strip is substantially rectangular in section, having a notched top, a bottom and sides and is provided with adhesive along its bottom or along one side.

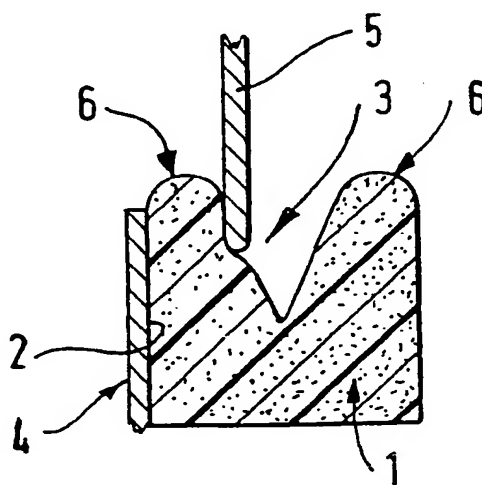


Fig. 2.

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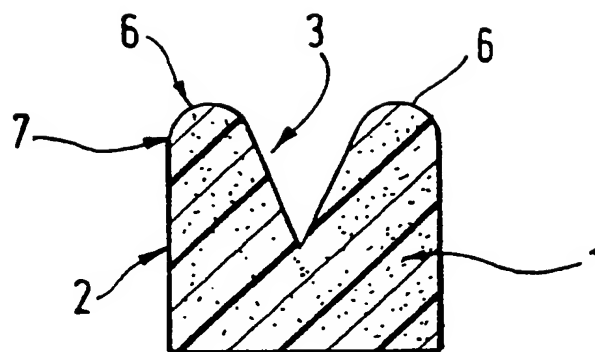


Fig.1.

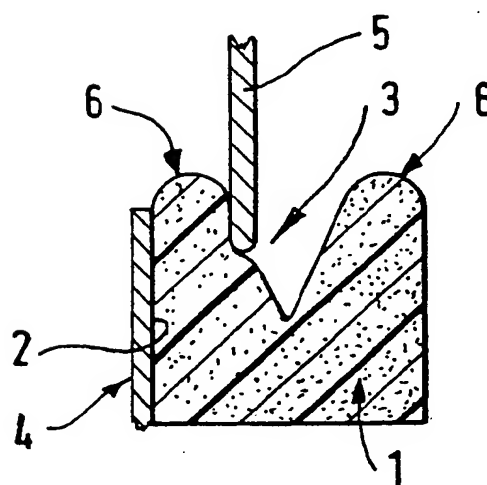


Fig.2.

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GAP FILLING

This invention is concerned with the provision of an improved method and a product for use in filling gaps in manufactured articles in a temporary way so that a further manufacturing or other step can more easily and effectively be carried out.

To take an example before painting motor vehicles it is almost always necessary to fill gaps between doors and the chassis of the vehicle and between the bonnet and surrounding bodywork to prevent paint entering the gaps and contaminating surfaces that should not be painted. At present this gap filling is effected by using what is called masking tape which is applied to the marginal edge of the product at each side of the gap. Normally a gap that has to be filled is situated between a movable member eg. the bonnet of a vehicle and a static member eg. the surrounding bodywork. To fill such a gap it is necessary, according to present technique to stick a length of masking tape around the opening in the bodywork which receive the bonnet and also around the edge of the bonnet in such a way that when the bonnet is closed the gap is filled. That present technique is effective but it is time consuming and therefore it is relatively expensive. It also requires a degree of skill in the application of the masking tape because, without going into unnecessary details the tape not only has to be stuck into position but a free overlap of the tape has to be folded over so as to be disposed between the movable part and the

static part when the movable part is closed.

A main object of the present invention is to provide an improved product and method for use in filling the gaps referred to above.

In accordance with a feature of the present invention a method of filling a gap between the edges of two members at least one of which is movable is provided characterised in that sponge or like material is applied to the edge of the member on one side of the gap in such a way that when the two members are brought together the gap between them is closed by the sponge or like material. In most cases the gap to be closed will be between the edges of a movable member and a static member, the edges being elongate but relatively thin. It is therefore preferred to provide a specially shaped length of gap filling material which may be substantially rectangular in section provided with an adhesive capability along one side and V-shaped or like notch or recess along the top so that e.g. when an upper member such as a vehicle bonnet is closed onto a lower member the edge of the upper member enters the notch or recess in such a way that the edge of the upper or movable member is embraced by the gap filling material.

It will be understood from the above that the improved gap filling material is relatively easy to apply because there need be no folding over as in the case of masking tape and it is also a considerable advantage that the material has to be applied only to

one of the edges. Therefore in accordance with another feature of the invention a gap filling product is provided comprising a length of sponge-like material having a top, a bottom and sides, the product being substantially rectangular in section, provided with an adhesive capability along the bottom or along one side and having a notch along the top.

In one embodiment of the invention the gap filling product may be about $\frac{1}{2}$ " thick with a width of about $\frac{1}{2}$ " to $\frac{3}{4}$ ", and the product may be made of a suitable plastics material or a suitable rubber composition or indeed of any other suitable sponge-like material which can be compressed between the two edges of a gap. The material may be applied to an edge of a movable part or to the edge of a static part but it is preferred to attach the material to a static edge.

In order that the invention may be more clearly understood reference is now directed to the accompanying drawings given by way of example in which:

Figure 1 is a cross-section of one form of gap filling product, and Figure 2 is a diagrammatic view showing how the product may be applied to the edge of the static bodywork of a motor vehicle so that is sandwiched between two edges when the bonnet is closed on to the body.

In the drawings a length 1 of the sponge-like gap filling product is provided with a self-adhesive layer 2 along one side and has a V-shaped notch 3 at the top

extending along the length of the product. The self-adhesive layer 2 is preferably covered by a protective layer of special paper or the like which can be removed before the product is applied to fill a gap.

In operation when the product is to be applied to, for example, the bodywork 4 of a vehicle the protective layer is removed, the product is applied to the inside edge of the bodywork 4 and the bonnet is then closed on to the product so that the edge 5 of the bonnet enters the notch 3 and the gap filling product is sandwiched between the two edges, is compressed and the gap is closed, as shown in Figure 2.

Naturally the gap to be closed may not always be as indicated in Figure 2. For example in some cases the edge of the bodywork 4 may be turned horizontally inwards at the top and the gap may therefore be between two substantially horizontal members in which the gap filling product will be appropriately applied and it is preferred to provide a specially shaped length of the product so that it can be successfully applied to fill substantially all gaps whatever the disposition of the edges may be.

It is preferred that the gap filling product be rounded at the apices 6 which stand proud of the adhesive layer 2 which ends at 7 so that the product 1 extends above or beyond the end of the bodywork 4. It is also important that the sponge-like product should be solvent resistant so that solvents in the paint do not

melt or eat away the material during painting which is effected after the gaps have been filled.

In this specification the expression sponge-like is intended to cover compressible foamed and the like material generally.

CLAIMS

1. A method of filling a gap between the edges of two members at least one of which is movable characterised in that sponge-like material is applied to the edge of the member on one side of the gap in such a way that when the two members are brought together the gap between them is closed by the sponge-like material.

2. A method according to claim 1 wherein the sponge-like material is adhesively secured to one of the edges.

3. A method according to claim 1 wherein a specially shaped length of sponge-like gap filling material is provided, the material having a top, a bottom and sides and being substantially rectangular in section, provided with an adhesive capability along the bottom or along one side and having a notch along the top side.

4. A gap filling product comprising a length of sponge-like material having a top, a bottom and sides, the product being substantially rectangular in section, provided with an adhesive capability along the bottom or along one side and having a notch along the top.

5. A gap filling product adapted to fill a gap between the edges of two members at least one of which

is movable wherein the product comprises a length of sponge-like material having a top, a bottom and sides and being substantially rectangular in section with an adhesive capability along the bottom or along one side and a V-shaped notch along the top whereby the product may be used by securing the length of material along one edge so that when the two members are brought together the edge of the other member enters the notch and the material fills the gap between the two edges.

6. A product according to claim 4 or 5 wherein the adhesive capability is provided by a self-adhesive layer which is covered by a protective layer which can be removed before the product is used.

7. A product according to claim 5 wherein the apices of the arms of the V-shaped notch are rounded.